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10/588,966	08/10/2006	Mitsunori Tanaka	1248-0689PUS1	3965
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EXAMINER MAPA, MICHAEL Y				
ART UNIT 2617		PAPER NUMBER		
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

Office Action Summary

Application No.

10/588,966

Applicant(s)

TANAKA, MITSUNORI

Examiner

Michael Mapa

Art Unit

2617

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 November 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4, 6-12 and 14-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4, 6-12 and 14-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB-08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Response to Amendment

1. The applicant has amended the following claims:

Claims 1-4, 6-12 and 14-16 have been amended.

Claims 5 and 13 have been cancelled.

With regards to the 112 second paragraph rejection on Claim 3 on the previous office action, the applicant has amended the claims to overcome the 112 second paragraph rejection. The examiner withdraws the 112 second paragraph rejection on Claim 3 stated on the previous office action.

With regards to the 101 rejection on claims 12 and 13 on the previous office action, the applicant has amended claim 12 to overcome the 101 rejection and cancelled claim 13. The examiner withdraws the 101 rejection on claim 12 stated on the previous office action.

Response to Arguments

2. Applicant's arguments with respect to claims 1-2, 4, 6-7, 9-12 and 14-16 have been considered but are moot in view of the new ground(s) of rejection.

With regards to the applicants arguments for claim 8, the applicant states that Hebeler fails to disclose "...amongst channels assigned on a frequency-by-frequency

basis, said channel limitation means excludes, from a choice of the usable communications channels, a channel nearby the boundary of a usable frequency band in the wireless communications system." The examiner respectfully disagrees. In Column 4, Lines 38 – 45 & Column 5, TABLE 1 and TABLE 2 of Hebeler, Hebeler discloses choosing and using only the subset of the available channels for communication. TABLE 1 discloses only using said subset and TABLE 2 discloses the frequency range for each channel, wherein each channel has a frequency near the frequency of the other channels. Therefore by using only the subset of the available channels, Hebeler excludes the other channels nearby the boundary of the usable frequency band not within the subset chosen.

With regards to the applicant's arguments for claim 3, the applicant states that Pelchat does not teach selection of channels for a set of user-selectable channels.

Applicant's arguments with regards to claim 3 have been fully considered but they are not persuasive. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

Claim Objections

3. Claim 14 is objected to because of the following informalities: Claim 14 states "stable channels" instead of "settable channels". For the purpose of the examination

and the rejection stated below, the examiner will interpret claim 14 to read as "settable channels." Appropriate correction is required.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claim 14 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The applicant has claimed "instruction means which is remote from the wireless communications system." However, claim 14 has claimed both transmitting device and receiving device as part of the wireless communication system. Therefore, the claimed limitation of "instruction means which is remote from the wireless communications system" is indefinite since the claim itself specifies that both transmitting and receiving devices are part of the wireless communication system. For the purpose of the examination and the rejection stated below, the examiner will interpret the claim to read as "remote from the receiving device." Appropriate correction is required.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1-2, 4, 6-12 and 14-16 are rejected under 35 U.S.C. 102(b) as being anticipated by Hebeler et al. (US Patent 6304756 herein after referenced as Hebeler).

Regarding claim 1, Hebeler discloses "A wireless communications system, comprising: a transmitting device; and a receiving device" (Fig. 1 & Column 3, Lines 16-17 & Column 3, Lines 46-49 of Hebeler, wherein Hebeler discloses a wireless telephone system which includes a handset and base station transmitting on one channel and receiving on another). Hebeler discloses "each of which is capable of performing wireless communications on a plurality of communications channels" (Column 3 Lines 21-23 of Hebeler, wherein Hebeler discloses the frequency band divided into a number of channels that is used by the handset and base station to communicate with each other). Hebeler discloses "further comprising: means for, during completion of an inspection process for the wireless communications system prior to shipment" (Figs. 2B & Column 4, Lines 8-13 of Hebeler, wherein Hebeler discloses the base station to "scan the channels to determine those channels which are clear and those which are unavailable due to interference" (inspection process) before sending the clear channel information to the handset, therefore an inspection process prior to shipment). Hebeler discloses "selecting and setting the number of user-selectable communications channels of the plurality of communications channels which a user is able to select and

which are less in number than the number of communications channels" (Fig.3 & Column 4, Lines 17-34 of Hebeler, wherein Hebeler discloses eleven available channels for communication from a forty channel system and wherein a subset is chosen from the available channels of communication).

Regarding claim 2, Hebeler discloses "The wireless communications system as set forth in claim 1, wherein: said user-selectable communications channels are randomly selected and set during completion of the inspection process" (Column 4, Lines 65 - 67 & Column 5, Lines 1 – 3 of Hebeler, wherein Hebeler discloses randomizing the available channels selected).

Regarding claim 4, Hebeler discloses "A wireless communications system including a transmitting device and a receiving device" (Fig. 1 & Column 3, Lines 16-17 & Column 3, Lines 46-49 of Hebeler, wherein Hebeler discloses a wireless telephone system which includes a handset and base station transmitting on one channel and receiving on another). Hebeler discloses "each of which is capable of performing wireless communications on a plurality of communications channels" (Column 3 Lines 21-23 of Hebeler, wherein Hebeler discloses the frequency band divided into a number of channels that is used by the handset and base station to communicate with each other). Hebeler discloses "wherein: the number of usable communications channels is less than the number of settable communications channels in said transmitting device and/or receiving device" (Fig.3 & Column 4, Lines 17-34 of Hebeler, wherein Hebeler discloses eleven available channels for communication from a forty channel system and wherein a subset is chosen from the available channels of communication). Hebeler

discloses "the wireless communications system further comprising channel limitation means for selecting the usable communications channels from the settable communications channels prior to shipment" (Figs. 2B & Column 4, Lines 8-13 of Hebeler, wherein Hebeler discloses the base station to scan the channels to determine those channels which are clear and those which are unavailable due to interference before sending the clear channel information to the handset, therefore selecting the usable communications channels prior to shipment).

Regarding claim 6, Hebeler discloses "The wireless communications system as set forth in claim 4, wherein: each of said transmitting device and the receiving device includes said channel limitation means; and the channel limitation means of one of said transmitting device and the receiving device (i) determines at least one of said usable communications channels" (Figs. 2A - 2B & Column 3, Lines 63 - 66 & Column 4, Lines 8-13 of Hebeler, wherein Hebeler discloses the handset and the base station to scan the channels to determine those channels which are clear and those which are unavailable due to interference). Hebeler discloses "and (ii) wirelessly transmits information of said at least one of usable communications channels determined, to the channel limitation means of another one of said transmitting device and the receiving device, via a predetermined communications channel" (Figs. 2A - 2B & Column 4, Lines 6-8 & Column 4, Lines 11 - 16 of Hebeler, wherein Hebeler discloses the handset and the base station to send bit field information of the clear channel information, therefore transmitting usable communication channels determined via a predetermined communications channel).

Regarding claim 7, Hebeler discloses "The wireless communications system as set forth in claim 4, wherein: said channel limitation means randomly selects the usable communications channels from the settable communications channels" (Column 4, Lines 65 - 67 & Column 5, Lines 1 – 3 of Hebeler, wherein Hebeler discloses randomizing the available channels selected).

Regarding claim 8, Hebeler discloses "A wireless communications system including a transmitting device and a receiving device" (Fig. 1 & Column 3, Lines 16-17 & Column 3, Lines 46-49 of Hebeler, wherein Hebeler discloses a wireless telephone system which includes a handset and base station transmitting on one channel and receiving on another). Hebeler discloses "each of which is capable of performing wireless communications on a plurality of communications channels" (Column 3 Lines 21-23 of Hebeler, wherein Hebeler discloses the frequency band divided into a number of channels that is used by the handset and base station to communicate with each other). Hebeler discloses "wherein: the number of usable communications channels is less than the number of settable communications channels in said transmitting device and/or receiving device" (Fig.3 & Column 4, Lines 17-34 of Hebeler, wherein Hebeler discloses eleven available channels for communication from a forty channel system and wherein a subset is chosen from the available channels of communication). Hebeler discloses "the wireless communications system further comprising channel limitation means for selecting the usable communications channels from the settable communications channels" (Figs. 2B & Column 4, Lines 8-13 of Hebeler, wherein Hebeler discloses the base station to scan the channels to determine those channels

which are clear and those which are unavailable due to interference before sending the clear channel information to the handset). Hebeler discloses "wherein: amongst channels assigned on a frequency-by-frequency basis" (Column 3, Lines 21 – 22 & Column 6, TABLE 2 of Hebeler). Hebeler discloses "said channel limitation means excludes, from a choice of the usable communications channels, a channel nearby the boundary of a usable frequency band in the wireless communications system" (Column 4, Lines 38 – 45 & Column 5, TABLE 1 of Hebeler, wherein Hebeler discloses choosing and using only the subset of the available channels for communication, therefore excluding the channels nearby the boundary of the usable frequency band not within the subset chosen).

Regarding claim 9, Hebeler discloses "A transmitting device for use in the wireless communications system set forth in claim 1" (Fig. 1 & Column 3, Lines 30 – 32 of Hebeler, wherein Hebeler discloses a base station and a handset to have an RF transceiver to communicate via RF transmissions with each other).

Regarding claim 10, Hebeler discloses "A receiving device for use in the wireless communications system set forth in claim 1" (Fig. 1 & Column 3, Lines 30 – 32 of Hebeler, wherein Hebeler discloses a base station and a handset to have an RF transceiver to communicate via RF transmissions with each other).

Regarding claim 11, Hebeler discloses "A method for controlling a wireless communications system including a transmitting device and a receiving device" (Fig. 1 & Column 3, Lines 16-17 & Column 3, Lines 46-49 of Hebeler, wherein Hebeler discloses a wireless telephone system which includes a handset and base station transmitting on

one channel and receiving on another). Hebelers discloses "each of which is capable of performing wireless communications on a plurality of communications channels" (Column 3 Lines 21-23 of Hebelers, wherein Hebelers discloses the frequency band divided into a number of channels that is used by the handset and base station to communicate with each other). Hebelers discloses "the method comprising the step of: selecting one or more usable communications channels from settable communications channels prior to shipment, in said transmitting device and/or receiving device" (Figs. 2B & Column 4, Lines 8-13 of Hebelers, wherein Hebelers discloses the base station to "scan the channels to determine those channels which are clear and those which are unavailable due to interference" before sending the clear channel information to the handset, therefore selecting the usable communications channels (free channels) from settable communications channel prior to shipment).

Regarding claim 12, Hebelers discloses "A storage medium storing therein a wireless communications system controlling program for operating the wireless communications system set forth in claim 4, wherein: execution of said program causes a computer to function as said channel limitation means" (Fig. 1 & Column 3, Lines 23 – 27 of Hebelers, wherein Hebelers discloses the base station to include a controller having a microcontroller and memory for providing audio processing, protocol control, data formatting and peripheral functions).

Regarding claim 14, Hebelers discloses "A wireless communications system including a transmitting device and a receiving device" (Fig. 1 & Column 3, Lines 16-17 & Column 3, Lines 46-49 of Hebelers, wherein Hebelers discloses a wireless telephone

system which includes a handset and base station transmitting on one channel and receiving on another). Hebelers discloses "each of which is capable of performing wireless communications on a plurality of communications channels" (Column 3 Lines 21-23 of Hebelers, wherein Hebelers discloses the frequency band divided into a number of channels that is used by the handset and base station to communicate with each other). Hebelers discloses "wherein: the number of usable communications channels is less than the number of settable communications channels in said transmitting device and/or receiving device" (Fig.3 & Column 4, Lines 17-34 of Hebelers, wherein Hebelers discloses eleven available channels for communication from a forty channel system and wherein a subset is chosen from the available channels of communication). Hebelers discloses "the wireless communications system further comprising: channel limitation means for selecting the usable communications channels from the settable communications channels" (Figs. 2B & Column 4, Lines 8-13 of Hebelers, wherein Hebelers discloses the base station to scan the channels to determine those channels which are clear and those which are unavailable due to interference before sending the clear channel information to the handset). Hebelers discloses "and instruction means which is remote from the receiving device for (i) determining at least one of the usable communications channels" (Figs. 2B & Column 4, Lines 8-13 of Hebelers, wherein Hebelers discloses the base station to scan the channels to determine those channels which are clear and those which are unavailable due to interference). Hebelers discloses "and (ii) remotely transmitting, to the channel limitation means, said at least one of communications channels determined" (Fig. 2B & Column 4, Lines 11 – 16 of Hebelers,

wherein Hebeler discloses the base station to send bit field information of the clear channel information to the handset, therefore remotely transmitting to the channel limitation means of the handset).

Regarding claim 15, Hebeler discloses "A transmitting device for use in said wireless communications system set forth in claim 4" (Fig. 1 & Column 3, Lines 30 – 32 of Hebeler, wherein Hebeler discloses a base station and a handset to have an RF transceiver to communicate via RF transmissions with each other).

Regarding claim 16, Hebeler discloses "A receiving device for use in said wireless communications system set forth in claim 4" (Fig. 1 & Column 3, Lines 30 – 32 of Hebeler, wherein Hebeler discloses a base station and a handset to have an RF transceiver to communicate via RF transmissions with each other).

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hebeler et al. (US Patent 6304756 herein after referenced as Hebeler) in view of Pelchat (US Patent 4233576 herein after referenced as Pelchat).

Regarding claim 3, Hebeler discloses "The wireless communications system as set forth in claim 1, wherein: said plurality of communications channels are each assigned a frequency" (Column 3, Lines 21 – 22 & Column 6, TABLE 2 of Hebeler). Hebeler discloses "and said means for selecting and setting successively selects said user-selectable communications channels" (Column 4, Lines 39 – 42 of Hebeler, wherein Hebeler discloses the handset determining a subset of available channels, therefore successively selects said user-selectable communications channels).

Hebeler fails to explicitly recite "in order beginning from a channel having a frequency that is closest to the center of a usable frequency band in said wireless communications system."

In a related field of endeavor, Pelchat discloses "in order beginning from a channel having a frequency that is closest to the center of a usable frequency band in said wireless communications system" (Column 8, Lines 30 – 33 of Pelchat, wherein Pelchat discloses signals close to the center of the band produce best overall cross talk cancellation for all channels concerned).

Therefore it would have been obvious to one of ordinary skill in the art to modify the invention of Hebeler to incorporate the teachings of Pelchat of selecting frequencies that is closest to the center of the band for the purpose of producing best overall cross talk cancellation (Column 8, Lines 30 – 33 of Pelchat).

Conclusion

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Mapa whose telephone number is (571)270-5540. The examiner can normally be reached on MONDAY TO THURSDAY 8:00AM - 5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nick Corsaro can be reached on (571)272-7876. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Michael Mapa/
Examiner, Art Unit 2617

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